

ABSTRACT OF THE DISCLOSURE

In an authentication communicating semiconductor device to enhance protection against illegal copying, a logic analyzer probe or the like is connected to a CPU bus to suppress possibility in which the authentication process is intercepted and is analyzed to break the mechanism of illegal copy protection and the electronic device is modified to set a tampered encryption key to the CPU bus. The authentication communicating semiconductor device includes a semiconductor chip, a main processing unit formed on the chip for generating a key code according to a predetermined algorithm, for determining approval/non-approval of communication of data with an external device, and for controlling the communication; an encryption unit formed on the chip for encrypting and decoding communication data using the key code generated by the main processing unit, and an interface unit formed on the chip for conducting communication with an upper-layer or a lower-layer according to a predetermined protocol.

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